**In The Drawings:**

Please substitute the attached replacement sheet for the as-filed FIG. 1. The Replacement Sheet is obtained by erasing the words in the blocks 110, 120, 140, 150, 160, 170, 180 and 190 of the original FIG. 1.

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## REMARKS

**Present Status of the Application**

The office action objected the specification because of incorrect grammar in paragraph [0023].

The office action objected the FIG. 1 under 37 CFR 1.84 (i) because the text is not oriented properly.

The office action rejected claims 1-8 and 14-20 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The office action rejected claims 1, 3, 7-9, 11-14 and 19 under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653) in view of Nanba (US 4,665,484) and Fujimoto (US 5,418,913).

The office action rejected claims 2, 10, 16-18 and 20 under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653), Nanba (US 4,665,484) and Fujimoto (US 5,418,913), and further in view of Fried et al (US 5,142,676).

The office action rejected claims 4-6 under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653), Nanba (US 4,665,484) and Fujimoto (US 5,418,913), and further in view of Balmer et al (US 5,742,599).

The office action rejected claim 15 under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653), Nanba (US 4,665,484) and Fujimoto (US 5,418,913), and further in view of IEEE("1003.1 Standard for Information Technology-POSIX"; Base definitions, Issue 6; 6

December 2001).

**Response To Specification Objection**

***The specification is objected to because of incorrect grammar in paragraph [0023].***

Actually, the grammatical error is occurred in paragraph [0021] rather than paragraph [0023]. To response the objection, applicants have amended paragraph [0021] to correct the grammatical error.

**Response To Drawings Objections**

***FIG. 1 is objected to under 37 CFR 1.84 (i) because the text is not oriented properly.***

Applicants think that FIG. 1 should be in accordance with 37 CFR 1.84 (i), which states "words must appear in a horizontal, left-to-right fashion". However, applicants have replaced FIG. 1 with a Replacement Sheet, which is obtained by erasing the words in the blocks 110, 120, 140, 150, 160, 170, 180 and 190 of the original FIG. 1.

**Response To Claim Rejections Under 35 U.S.C. Section 101**

***Claims 1-8 and 14-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.***

For response to the rejection, applicants have amended the subject matter of claims 1-8 and 14-20 "message transmitting queue" to read "a buffer device", which is a statutory subject matter. The amendments of claims 1-8 and 14-20 are supported by the specification of the present

invention. For example, FIG. 1 shows a device 100 to buffer the message transmitting between the source controller 110 and the destination controller 120. The section entitled "SUMMARY OF THE INVENTION" of the present invention is amended based on the amendments of claims 1-8 and 14-20 accordingly. Moreover, claim 9 is amended to correct a typographical error. No new matter is introduced.

Moreover, the amended claim 1 recites "[a] buffer device ... comprising: a plurality of message rows, **for storing the messages** ... a write control unit, **coupled to the source controller** and the plurality of message rows... and a read control unit, **coupled to the destination controller** ...". On the other hand, the amended claim 14 recites "[a] buffer device ... comprising: a plurality of message rows, **for storing the messages** ... a write control unit, **coupled to the source controller** and the plurality of message rows... and a read control unit, **coupled to the destination controller** ...". As known by a person skilled in the art, **storing the messages** is a function of hardware, so that the feature "a plurality of message rows, **for storing the messages**" relates to hardware. Further, the source controller and the destination controller are hardware, so that the limitations "**coupled to the source controller**" and "**coupled to the destination controller**" all recite connections of hardware. Therefore, the subject matter of claims 1 and 14 relates to a structure of hardware.

Since claims 2-8 and 15-20 are respectively depend on claim 1 or 14, these claims should be directed to a statutory subject matter.

**Response To Claim Rejections Under 35 U.S.C. 103(a)**

***Claims 1, 3, 7-9, 11-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653) in view of Nanba (US 4,665,484) and Fujimoto (US 5,418,913).***

***Claims 2, 10, 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653), Nanba (US 4,665,484) and Fujimoto (US 5,418,913), and further in view of Fried et al (US 5,142,676).***

***Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653), Nanba (US 4,665,484) and Fujimoto (US 5,418,913), and further in view of Balmer et al (US 5,742,599).***

***Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawauchi (US 5,619,653), Nanba (US 4,665,484) and Fujimoto (US 5,418,913), and further in view of IEEE("1003.1 Standard for Information Technology-POSIX"; Base definitions, Issue 6; 6 December 2001).***

Regarding independent claims 1 and 14 of the present invention, the write control unit determines whether the message row is free **according to the plurality of distribution complete flags**. In other words, the write control unit determines whether the address of the message row is free according to the distribution complete flags. Only when the message row is free, the write control unit outputs the address of the free message row to the source controller such that the source controller would write data into the free message row.

However, Examiner has admitted that Kawauchi does not disclose the distribution complete flags as recited in claims 1 and 14 of the present invention. Therefore, the write control

unit of Kawauchi fails to output the address of a free message row according to the distribution complete flags.

Examiner states that "Nanba teaches the use of a distribution complete flag, retrieving addresses based on the distribution complete flag, setting the distribution flag once the address has been retrieved, and clearing the distribution complete flag. (Nanba: col. 1, lines 17-45 specifies a test and set instruction, which uses a lock control flag on shared memory)", in page 6, last paragraph of the above Office Action dated March 20, 2008. However, in column 1, lines 17-45, Nanba only discloses that a control bit is used to indicate whether or not a corresponding shared resource is locked, but Nanba fails to disclose the distinguishable features "retrieving addresses based on the distribution complete flag", "setting the distribution flag once the address has been retrieved", and "clearing the distribution complete flag" of the present invention. Therefore, the ground for rejecting claims 1 and 14 of the present invention lacks support.

In addition, Examiner suggested that the controller 110 of Kawauchi is equivalent to both the write control unit and the read control unit as recited in claims 1 and 14 of the present invention. However, the controller 110 of Kawauchi is a single unit rather than two different units. Moreover, the write control unit and the read control unit of the amended claims 1 and 14 are coupled to the source controller and the destination controller respectively, but Kawauchi fails to disclose such connections of the controller 110. The controller 110 of Kawauchi is only provided to control the operation of the buffer device (see column 3, lines 42-43). Therefore, the controller 110 of Kawauchi is not equivalent to the write control unit and the read control unit of the present invention.

For at least the above reasons, independent claims 1 and 14 of the present invention are not obvious over the cited references.

Regarding independent claims 1 and 9 of the present invention, the amended claim 1 includes the limitation "after the destination controller reads the message, **the distribution complete flag** and **the write complete flag** of the message row are both cleared". Moreover, claim 9 includes the limitation "clearing **the distribution complete flag** and **the write complete flag** of the message row ... after the destination controller reads the message of the message row pointed to by the read pointer". Therefore, it is obvious that both the distribution complete flag and the write complete flag of the message row are cleared after the destination controller reads the message. Neither Kawauchi nor Nanba teaches such a distinguishable feature. Therefore, independent claims 1 and 9 of the present invention are not obvious over the cited references.

Further regarding independent claim 14 of the present invention, independent claim 14 further includes the limitation "a read control unit ... sequentially issue a read request to inform the destination controller to read said messages according to **said write complete flags** and **said read pointer**". The Examiner does not provide any evidence to show that the above distinguishable technical feature is obvious over the cited reference. Therefore, the examiner's rejection of claim 14 is not justified.

Since the cited references do not teach or suggest Applicants' inventive features as discussed above, it is respectfully submitted that independent claims 1, 9 and 14 and their dependent claims of the present invention are patented over the cited references. Therefore, the cited references do not anticipate or otherwise render obvious Applicants' claimed invention.

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**Application No.: 10/065,762** **Docket No.: JCLA8424**

## CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-20 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
J.C. PATENTS

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